

REMARKS

Claims 1, 2, 5, 7-10, and 29-35 were pending in the above-identified application when last examined and stand rejected. The rejection was made final. Pursuant to 37 C.F.R. § 1.114, a request for continued examination is being filed with this submission, and the required fee is authorized in an accompanying transmittal letter. Accordingly, Applicant requests withdrawal of the final rejection and entry of the above amendment of the claims. Applicants also request allowance of the patent application for the following reasons.

Claims 1, 2, 5, and 29-32 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Pat. No. 6,621,710 (Cheng) and U.S. Pat. No. 6,020,750 (Berger). Claim 5 is canceled as redundant in view of the amendment of claim 1. Applicant respectfully traverses the rejection of 1, 2, and 29-32.

Claim 1 distinguishes over Cheng and Berger by reciting, "A probing system for testing a device comprising: ... a substrate ..., wherein the substrate is substantially identical to an interconnect substrate used in a flip-chip package for the device." Neither Cheng nor Berger disclose or suggest using an interconnect substrate from or suitable for a flip-chip package in probing equipment. For example, Figs. 2 and 3 of Cheng illustrate a substrate 226, which the Final Office Action indicated as corresponding to the substrate of now-canceled claim 5. Cheng beginning at column 2, line 61, describes that "it is preferable that the second surface 222 of the silicon substrate 220 is formed with a stress buffer layer 226." However, Cheng makes electrical connections to a top surface 221 of silicon substrate 220 using flexible wiring film 225. Cheng does not suggest that buffer layer 226 or flexible wiring film 225 is identical to or even suitable for use in a flip-chip package.

In accordance with an aspect of the current invention, production costs of a probing system can be reduced through use of an interconnect substrate that is designed and fabricated in quantity for flip-chip packages, to perform part of the signal fan out in the probing system. Cheng and Berger fail to provide any suggestion of such use of an interconnect substrate. Accordingly, claim 5 further distinguishes from and is patentable over Cheng and Berger.

Claims 2 and 29-32 depend from claim 1 and are patentable over Cheng and Berger for at least the same reasons that claim 1 is patentable over Cheng and Berger.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 102.

Claims 7-9 and 33-35 were rejected under 35 U.S.C. § 103(a) as unpatentable over Cheng in view of U.S. Pat. No. 6,480,012 (Komori) and U.S. Pat. No. 6,379,982 (Ahn). Claim 34 is canceled. Applicant respectfully traverses the rejection of claims 7-9, 33, and 35.

Claims 7-9, 33, and 35 depend from claim 1, which is patentable over Cheng for the reasons indicated above. In particular, Cheng fails to disclose or suggest a probing system using a substrate that "is substantially identical to an interconnect substrate used in a flip-chip package for the device." Komori describes wafer level systems such as probe card wafer 1 and insulator board 2 that are specifically for probing, but Komori fails to disclose or suggest use of an interconnect substrate from a flip-chip package in a probe card. Ahn discloses testing of wafers containing chip-scale packages before dicing or segmenting of the wafer to produce separate chip-scale packages. Chip-scale package elements described by Ahn are thus portions of the wafer under test and not the probing system. Accordingly, the combination of Cheng, Komori, and Ahn fails to suggest "A probing system for testing a device comprising: ... a substrate ..., wherein the substrate is substantially identical to an interconnect substrate used in a flip-chip package for the device," as recited in claim 1, and claims 7-9, 33, and 35, which depend from claim 1, are patentable over Cheng, Komori, and Ahn.

For the above reasons, Applicant requests reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

Claim 10 was rejected under 35 U.S.C. § 103(a) as unpatentable over Cheng in view of Komori. Applicant respectfully traverses the rejection. Claim 10 depends from claim 1, which is patentable over the combination of Cheng and Komori for the reasons given above in regard to the combination of Cheng, Komori, and Ahn. Accordingly, claim 10 is patentable over Cheng and Komori, and Applicant requests reconsideration and withdrawal of this rejection under 35 U.S.C. § 103.

New claims 36 and 37 depend from claim 1 and are patentable for at least the same reasons that claim 1 is patentable.

In summary, claims 1, 2, 5, 7-10, and 29-35 were pending in the above-identified application were pending in the application. This response amends claim 1, cancels claims 5 and 34, and adds claims 36 and 37. For the above reasons, Applicants respectfully request

withdrawal of the final rejection and allowance of the application including claims 1, 2, 7-10, 29-33, and 35-37.

Please contact the undersigned attorney at (530) 621-4545 if there are any questions concerning the application or this document.

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Respectfully submitted,



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